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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/036,389 | 01/07/2002 | Cheng-Yi Liu | 220712660 | 3651 |

7590 08/22/2003

Schwegman, Lundberg, Woessner & Kluth, P.A.
P.O. Box 2938
Minneapolis, MN 55402

EXAMINER

TRAN, MAI HUONG C

| ART UNIT | PAPER NUMBER |
|----------|--------------|
| 2818 | |

DATE MAILED: 08/22/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | |
|------------------------------|----------------------------|------------------|
| Office Action Summary | Application No. | Applicant(s) |
| | 10/036,389 | LIU ET AL. |
| | Examiner Mai-Huong Tran | Art Unit 2818 |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 21 July 2003.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 13-27 and 29-44 is/are pending in the application.
 - 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 13-27 and 29-44 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner.
 If approved, corrected drawings are required in reply to this Office action.
- 12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
 - a) The translation of the foreign language provisional application has been received.
- 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ . |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ . | 6) <input type="checkbox"/> Other: _____ . |

DETAILED ACTION

Claim Rejections - 35 U.S.C. § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 13-27 and 29-44 are rejected under 35 U. S. C. § 102 (b) as being anticipated by U.S. Patent No. 5,621,615 to Dawson et al.

Regarding to claim 13, Dawson discloses a method of fabricating an integrated circuit package, comprising mounting a thinned semiconductor die 316 on a planar surface of a heat spreader 306 as set forth in col. 3, lines 55-59, col. 6, lines 4-67, and figs. 3B, 4B.

Claim 14 is rejected under the same rationale set forth above to claim 13.

Claim 15 is rejected under the same rationale set forth above to claim 13.

Regarding to claim 16, the method wherein the die has a thickness of no more than 100 μm (col. 6, lines 61—64).

Claim 17 is rejected under the same rationale set forth above to claim 13.

Claim 18 is rejected under the same rationale set forth above to claim 13.

Claim 19 is rejected under the same rationale set forth above to claim 13.

Claim 20 is rejected under the same rationale set forth above to claim 13.

Claim 21 is rejected under the same rationale set forth above to claim 13.

Claim 22 is rejected under the same rationale set forth above to claim 13.

Claim 23 is rejected under the same rationale set forth above to claim 13.

Regarding to claim 24, Dawson discloses a method of fabricating an integrated circuit package, comprising providing a planar heat spreader; mounting a plurality of thinned semiconductor dice 316, 318 on to a planar surface of the heat spreader to form a plurality of conjoined microelectronic packages; and singulating the plurality of conjoined microelectronic packages as set forth in col. 6 lines 4-67 and figs. 3B and 4B.

Claim 25 is rejected under the same rationale set forth above to claim 24.

Claim 26 is rejected under the same rationale set forth above to claim 24.

Claim 27 is rejected under the same rationale set forth above to claim 24.

Claim 29 is rejected under the same rationale set forth above to claim 24.

Claim 30 is rejected under the same rationale set forth above to claim 24.

Regarding to claim 31, the method wherein the die has a thickness of no more than 100 μm (col. 6, lines 61—64).

Regarding to claim 32, Dawson discloses a method of fabricating an integrated circuit package, comprising mounting a thinned semiconductor die on a planar surface of

a heat spreader, wherein the thinned semiconductor die has a thickness of no more than 100 μm , and wherein mounting includes depositing a metallization layer on a back surface of the die as set forth in col. 3, lines 55-59, col. 6, lines 4-67, and figs. 3B, 4B.

Claim 33 is rejected under the same rationale set forth above to claim 32.

Claim 34 is rejected under the same rationale set forth above to claim 32.

Claim 35 is rejected under the same rationale set forth above to claim 32.

Claim 36 is rejected under the same rationale set forth above to claim 32.

Claim 37 is rejected under the same rationale set forth above to claim 32.

Claim 38 is rejected under the same rationale set forth above to claim 32.

Claim 39 is rejected under the same rationale set forth above to claim 32.

Claim 40 is rejected under the same rationale set forth above to claim 32.

Claim 41 is rejected under the same rationale set forth above to claim 32.

Claim 42 is rejected under the same rationale set forth above to claim 32.

Claim 43 is rejected under the same rationale set forth above to claim 32.

Claim 44 is rejected under the same rationale set forth above to claim 32.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mai-Huong Tran, (703) 305-1958. The examiner can normally be reached on Monday-Thursday from 8:00 AM to 6:30 PM. The examiner's supervisor, David Nelms can be reached on (703) 308-4910.

The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9318. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.



Mai-Huong Tran



HOAI HO
PRIMARY EXAMINER